

## Prime numbers by sieve

THERE is a whole series of programs lurking on MicroLink which you can call up interactively. A couple of newsletters ago, I told you about the Esperanto tutor which is a neat way of getting familiar with this international man-made language. You'll remember that you summon the program up by typing:

### >R ESPERO

Incidentally, Esperanto was invented by a Polish gentleman in the latter half of the last century, who rejoiced in the very un-Polish name of L.L. Zamenhof.

Take an even odder name, this time a Greek from the third century BC, called Eratosthenes of Cyrene, a famous astronomer and mathematician of his time, remembered nowadays for just one thing, the so-called sieve of Eratosthenes.

It's a way of working out prime numbers, and there's a demo of the way it works on line from the MicroLink prompt. (Quite appropriate really, as MicroLink runs off a new Prime computer!)

Just type:

### >R SIEVE

and watch it work before your very eyes. The way it functions (and I'm no mathematician, so bear with me) is something like this:

You take the numbers 1, 2, 3, and so on until you run out of paper or patience, and strike out the number one. Then you cut out every second number following the number two, every third number following the number three, and so on. What's left from the sieve are the prime numbers.

That's just another of the little gems lurking in the library of online programs on MicroLink.

*Rex Last*

## Speeding up QW

MANY MicroLink users are now taking advantage of **QW** in order to find out which other users are accessing the system at the same time.

To speed up this facility, there are now two separate commands. **>QW** will simply give a list of mailbox numbers. **>QWD** will give the same information, but the subscriber's directory name will be given alongside the MAG number.

If you wish to change your name, send a request to MAG999. You can have up to 19 characters. The first character *must* be alphabetical (A to Z). You cannot include spaces in your name, but you can use . - " \_ &

Duplicate names are not allowed, so if there is already a JOHN.SMITH another user with the same name could, for example, use JOHN-SMITH.

To see how your own name is displayed (or find others with a similar name) key **>FIND** followed by your name.

## Archimedes User Group debuts

ARCgroup started as an idea, from a series of exchanges on the MicroLink Bulletin Board. It seemed that there were as many differing views on the machine, as people to comment on it. As a prospective purchaser, I was becoming more than a little confused, so I decided to try to get interested parties together, to tease the fact from the fiction.

Arcgroup presently operates as a group of Email correspon-

dants, divided between owners and prospective owners. It provides a forum where the reality of the machine and its software can be discussed, openly, but away from the sales front gloss and dross!

I am personally very glad to be a 'member' and to participate in the discussion. I now know what to expect when it's there on my desk. I now have an idea of which software to buy, and which to pass by, and where to get the best deals on a limited budget.

If you are on MicroLink and have a user based interest in Acorns' new supercomputer, you surely cannot afford to miss out on this 'special interest group'.

You will certainly be very welcome!

*Brian Vallot-Lewis MAG11357*

## Outdated – but it's still vital

DESPITE the advent of email and fax, telex remains the principal form of electronic communication in many countries. Although it is in some ways an outdated system it is a world standard which businesses simply can't ignore.

The problems with using telex used to be twofold: First, you had to buy an expensive, cumbersome telex machine. Second, you needed a dedicated telex phone line, because it wasn't much use having an answering facility if you had to guess when a message was due.

Both these problems have been dissipated by MicroLink. The micro and modem you use for email or any other MicroLink facility can double as a telex machine. And the MicroLink central computer is always on line waiting to receive an incoming telex.

Sending a telex is as simple as using email. Enter **TT** at the MicroLink chevron (**>**) prompt, and you're into the Telex system with full online help available.

The main telex commands are:

**INPUT** – This is the equivalent of the **Text** prompt for email. You can type your message in real time or upload it from a file held on disc. When the message is complete, you use the familiar **S** to send it.

**LIST** – This displays the text of your telex message(s).

**WHERE** – This gives you information about the status of your telex message(s), for instance whether or not there have been any problems with the remote telex machine, and how many attempts at sending have been made.

**MAIL** – This sends a copy of your telex message to your own MicroLink mailbox, so that you can print it out or store it.

Many other commands are available. For example, you can instruct the MicroLink computer automatically to add a sign-off message to all your telexes: "John Smith, Marketing Director, HardSoft Ltd" or whatever. You can re-queue a message you have previously aborted, turn on and off brief Help prompts, use a short code for frequent recipients instead of constantly re-typing their telex number, send a single telex to multiple recipients, instruct the system to inform you by Express letter on your mailbox that your telex has been sent successfully, and so forth.

Messages you send will automatically contain your MAG number, and incoming telexes addressed to it will appear as Express letters on your mailbox. This means that you can use your MAG number on your letterheads as a Telex address.

*Gabriel Jacobs*

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# MicroLink NEWSLETTER

No. 4

April 1988

## MicroLink upgrade completed

THOSE of you who patiently endured the recent shutdown are now benefiting from the work done that weekend to improve the system.

While we were out of action the final stages of our lengthy upgrading project in conjunction with Telecom Gold were successfully completed.

The entire MicroLink system was moved on to a £250,000 Prime 9955 Mark II computer which runs three times faster than the previous CPU – providing much greater scope for expansion.

At the same time the operating system was upgraded to Revision 19 software – meaning faster access times to the different sections of MicroLink and the opportunity to introduce features not possible before.

The computer itself was relocated in a top-security building in north London – producing a rationalisation of network user paths resulting in more efficient access.

Data storage was transferred to Prime 496 discs which are 25 per cent faster than the current discs. And considerable file reorganisation has improved disc response times even further.

Despite the size and complexity of the task, downtime was minimised. In fact we kept our promise that the work of upgrading would be finished before the first business users activated their computers on Monday morning.

You should get more good news when your next monthly bill arrives – faster access times mean a reduction in the cost of using MicroLink.

## Gold animation

ALTHOUGH MicroLink is a text service, it is possible to produce some interesting effects if you make use of control characters. Making text move around the screen is quite easy.

Simple animation on a micro involves printing the character you want to move then wiping it out with a space and re-printing it in its new position. So let's look at two ways this principal can be used on MicroLink: Shaking a word or moving it across the screen.

The former is achieved by displaying a word – say MOVE – and then displaying the same word, preceded by a space, in exactly the same position. The space will overwrite the original M. Go back to where you started, but this time show the same word *followed* by a space. Now the space will overwrite the E. If you keep repeating the process the word will appear to jump backwards and forwards.

*But how do you get the word to go on top of the one it's got to*



overprint? As you send electronic mail, if you press Return after typing anything you're moved on to the next line. But, providing your terminal or the one receiving the message doesn't filter control codes out, you can press Control+K to move back up to the line you want to overwrite. Spaces can be used to move you along it.

Now on to moving a word – or phrase – along a line. Simply type the word and press Return followed by Control+K. Then type a space followed by exactly the same text – including the Return and Control+K. Repeat the process but this time put two spaces at the start, then three, four and so on.

So that's how you can move text on MicroLink. Using Control+K you can produce other interesting effects – such as messages printing upwards from the bottom of the screen.

There are a couple of points to watch out for: First, the message will spoil the effect if you make too many moves as each one involves a Return. Also, if you print out an animated message, you'll get a lot of repeated text.

Before you start livening up your messages with movement it's a good idea to practise first. Remember you can use:

#### MAIL SEND ME

to send a message to your own mailbox to try out the effects for yourself first.

**Pete Davidson MAG014**

## It pays to advertise MicroLink

If your business was blessed by patronage from a member of the Royal Family, your letterheads and advertisements would proudly bear a coat-of-arms over a legend beginning **By appointment to...**

Now I'm not suggesting that a MicroLink ID carries the same status as that, but putting your mailbox number on your business correspondence will give you an extra advantage over your competitors.

MicroLink has almost 10,000 subscribers and the number is increasing by 300 each week. There are a further 95,000 subscribers in the Telecom Gold system who can address your mailbox directly. And on a world-wide basis, the international Dialcom network has many hundreds of thousands of accounts.

So how do you make sure that potential customers know how to reach you with speed and ease? In your advertisements or on your stationery, place a line similar to the one below near to your telephone number:

**Gold 72:MAG99999**

substituting your own ID for the one shown. All you have to do then is sit back and wait for the responses to flood in.

If you are validated for telex, you can also make that fact known by:

**Telex: 265871 MONREF G  
Quoting Ref. MAG99999**

and put yourself in reach of even more potential clients – also on a world-wide basis.

Advertising doesn't come cheap, so make the most of it and give yourself every possible opportunity of reaching new – and existing – customers.

● Telex validation incurs a one-off administration charge of £10 and can be obtained by sending a request to MAG999 (Helpline). The £10 will be added to your next MicroLink account.

**Ken Hughes MAG043**

## Experts on line

MICROLINK'S newest bulletin board has got off to an accelerated start. ExpertLink, a bulletin board designed to provide expert advice on a wide range of business queries, has been in full operation now for nearly a month and already hundreds of questions, comments and observations have been put on to the board by interested MicroLink users.

ExpertLink is run by MicroLink in collaboration with a team from the University College of Swansea. It provides business men and women – from large company executives to small retailers – with the chance to be in constant contact with others in their industry, plus instant professional expertise and advice with no strings attached, no axe to grind, and no commercial bias.

A full range of problem areas can be covered, from legal to personnel, from computing systems to statistical analyses, and from industrial design to ergonomics. And even this list doesn't preclude other areas being covered.

Any MicroLink subscriber can join the growing band of board users by simply entering **EXPERT** at the MicroLink chevron prompt. You're taken straight into the welcome screen, with information about the board, how to operate it, and details of the experts' areas of competence.

You can browse through the messages already on the board – and the replies – and you can leave messages of your own or reply to problems posed by others.

All messages are read by the system operators, who pass them on automatically to the relevant university expert. So, even if other subscribers have answered the query, the MicroLink/UCS team will also, wherever possible, give an answer.

Even confidential queries are catered for. If you send a message to **MAG079** only the system operators will see it. It will then be forwarded in *complete confidence* to the relevant expert in the field.

So try out the newest bulletin board today. Type **EXPERT** at the MicroLink prompt and see how some of your business questions can be solved by experts in the field.

#### EXPERT LINK

- 1: Introduction
  - 2: Who's Who
  - 3: Categories
  - 4: Information and Help
  - 5: Access the Board
- 1-5 Q:uit

## X400 is getting nearer

AS part of this month's system enhancement, all mail items on MicroLink are given an individual code – the first step on the road to X400, when we will be able to make direct contact with other email systems throughout the world.

The code IPM-10072-880412-839471344, for instance, can be broken down as:

<b>IPM</b>	Inter-Personal Messaging
<b>10072</b>	100=Telecom Gold; 72=MicroLink
<b>880412</b>	The date (backwards)
<b>839471344</b>	Unique message number

## Making the most of the BB

ACCORDING to messages reaching the Helpline a number of users are not aware of the shortcuts available when accessing the MicroLink Bulletin Board.

The board can be accessed from the main system prompt (>) by using one of the following commands:

<b>BB</b>	Takes you through the entire selection process
<b>BBQ</b>	Takes you straight to the Read, Send... area
<b>BBNEW</b>	Takes you straight into the bulletin board to read messages added since you last accessed it.

You can also modify the commands to enable you to perform a specific task. For example, to scan a particular category use the following command:

**BBQ SC CA CHATTER**

This will access the board and scan the category **CHATTER**. As a short cut to send a message to a specific category use:

**BBQ SE CA BBC/ELECTRON SU VIEW**

When **Text:** appears on your screen, you can either upload the contents of a prepared Ascii file from your disc or you can type in your message while on line.

To scan for new items – those posted to the board since the last time you accessed it – use:

**BBQ SC N**

You can also specify a category here if you wish.

All commands must be entered at the system prompt and must start with **BBQ**. Here is a full list of available modifiers:

<b>SE</b>	= Send
<b>SC</b>	= Scan
<b>SU</b>	= Subject
<b>R</b>	= Read
<b>FR</b>	= From
<b>CA</b>	= Category
<b>H</b>	= Help

These modifiers can be combined in a single command line as in:

**BBQ SC CA AMSTRAD FR MAG999**

This will scan the category **AMSTRAD** for any messages which have been sent by **MAG999** and:

**BBQ R CA IBM PC SU PC1512**

will read all messages in the **IBM PC** category with the subject **PC1512**.

All these shortcuts do work. Feel free to experiment with them – if the system doesn't like what you've tried to do it will respond with **Invalid command** or similar.

Next month we'll have a look at using the MicroLink Users directory and Telecom Gold's own **GOLD.DIR**

**Ken Hughes MAG043**